



Financial penalties on unhealthy foods

The fat tax in Denmark

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Financial Penalties on Unhealthy Foods

- the "Fat Tax" in Denmark

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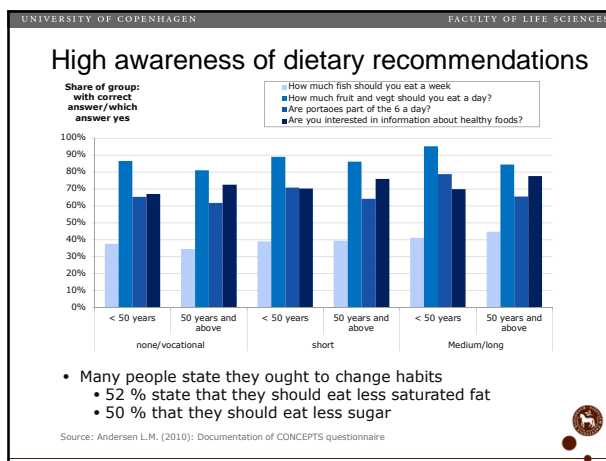
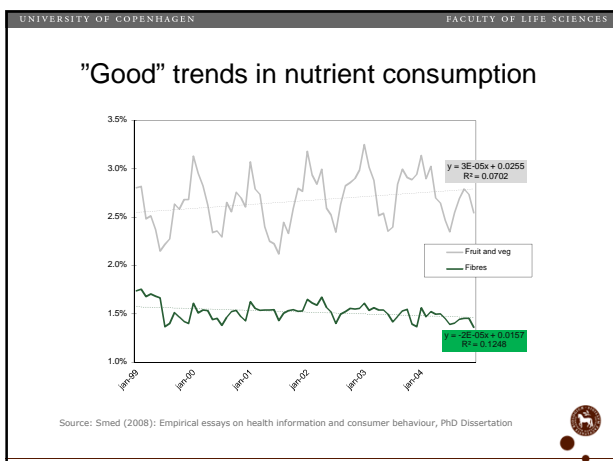
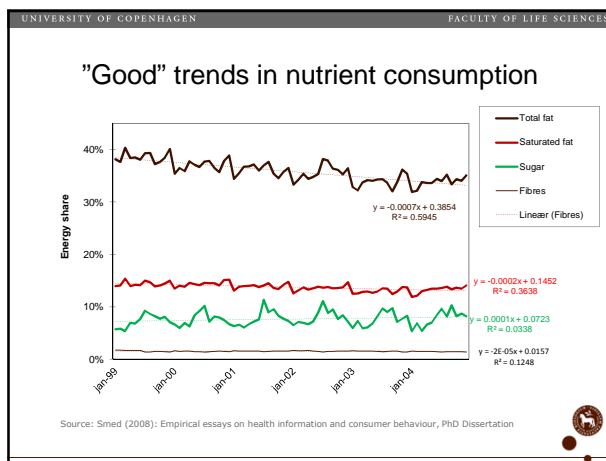
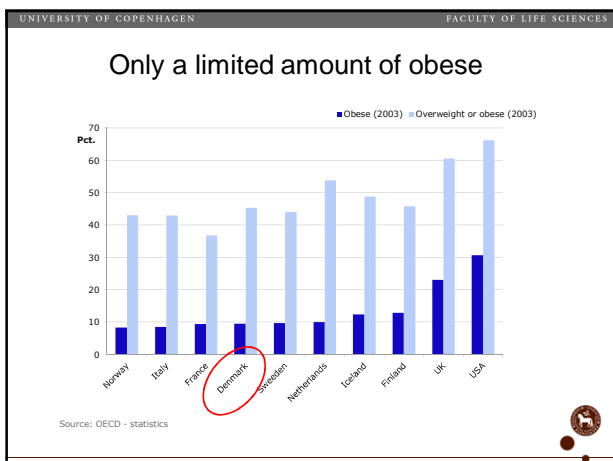
Natural salt and sugar replacers, conference
 16-17 November 2011, London



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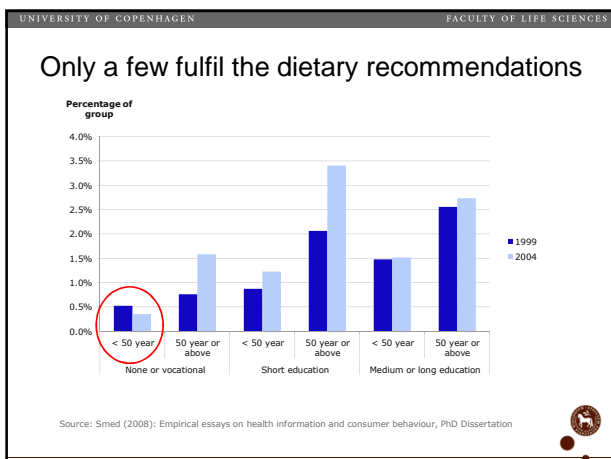
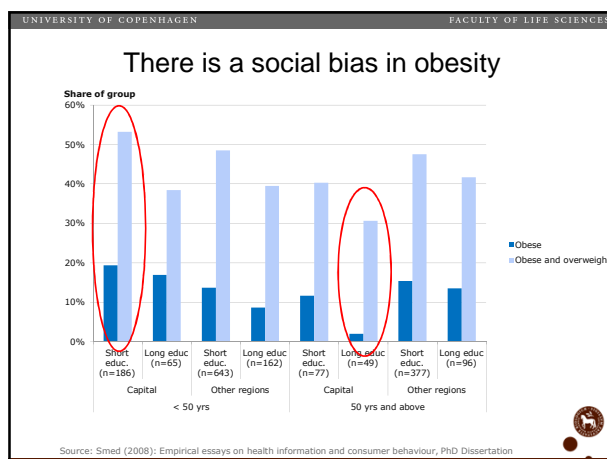
Agenda


- The dietary status in Denmark
- Some background for the "fat tax"
- Regulating dietary habits in a theoretical setting
- The new tax "package"
 - Sugar tax
 - The fat tax
 - The difficult delivery of the fat tax, proposals, discussions and modifications
 - The final proposal
- The industry
- What is the assumed effect of the tax?




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BUT!





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- ## And we die too early
- Smoking, bad diets, alcohol and inactivity are cause of 40 % of all deaths
 - Excess intake of saturated fat 3.7 %
 - Smoking 23.8 %
 - To little fruits and vegetables 3.8%
 - Inactivity 7.4%
 - Alcohol 5.2%
 - Prevention committee
 - Increase average years of life with 3 years over a period of 10 years
 - 51 recommendations
 - Increasing the tax on sugar and impose a tax on saturated fat
- 

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- ## History of food taxes in Denmark
- We have a VAT on 25% on almost everything
 - Cigarettes, alcohol and soft-drinks
- 

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Why do economists like taxes?




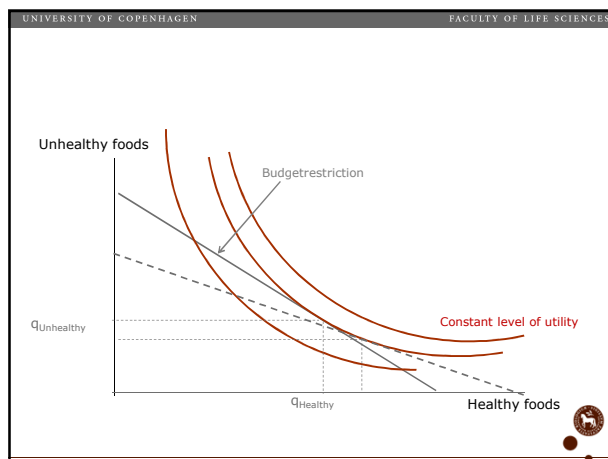
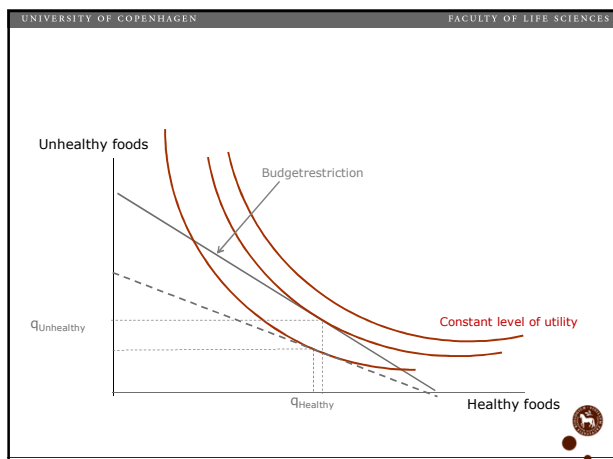
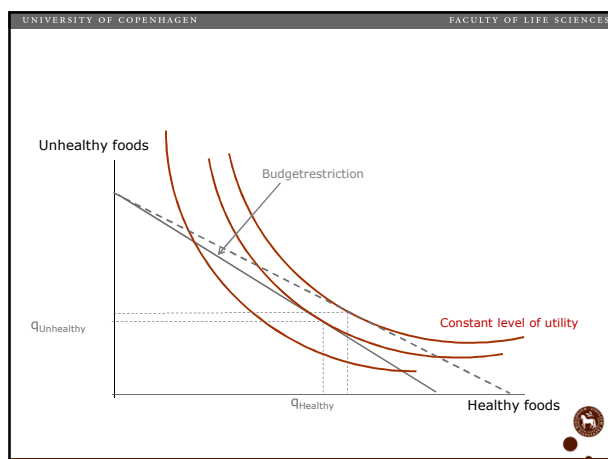
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Arguments for taxing food

- Opposite bans consumers have the possibility of adjusting to the changed conditions
- The price of the food will reflect the social cost of consuming that food
- Revenue for the authorities – can be used for health promoting activities


Arguments against taxing food

- You want to tax abuse NOT use
- Administration costs
- Food is a private thing
- Regressive effect of taxation

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Danish nutrition policy



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The 2010 tax reform

- Increased taxation of tobacco by 0.4 € per 20 cigarettes.
- Tax on sweets, chocolate and sugar products and ice cream is **increased** by:
 - Sugar-products 0,48 €/kg
 - Ice-cream 0,11 €/litre
 - This means that the tax on a 100 grams bag of sweets increases from 0.19 € to 0.24 €
- Tax on soft drinks with sugar increases by 0.04 €/litre and decreases by 0.04 €/litre on sugar free soft drinks
 - Tax on 1 litre of e.g. Coca Cola increases from 0,12 € USD to 0,16 € or decreases to 0,08 €
- Tax on saturated fat



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What does the reform imply?

Before tax-reform:
Price=8.45+0.76=9.22 €

After tax-reform:
Price=8.45+0.9=9.35 €

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What does the reform imply?

Before tax-reform:
Price=8.45+0.76=9.22 €

After tax-reform:
Price=8.45+0.82=9.27 €

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History of the fat-tax proposal

- Original proposal - saturated fat with milk and meat exempted
 - Meat contribute with 22 % of total fat and 19% of sat. fat
 - Drinking milk contribute with 19% of total fat and 16% of sat. fat
 - EU – commission found it anti-competitive
- Modified proposal
 - Tax on saturated fat (except milk) 13.50 DKK/kg (1.81 €)
 - The cost of a packet of butter (250 grams) increase by 0.3 €
 - The cost of 250 g chips increase by 0.08 €
 - Meat – taxed according to estimated content of fat by means of animal type
 - Beef 10 g saturated fat/100 g
 - Pork 12 g saturated fat/100 g
 - Poultry 3.4 g saturated fat/100 g

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	Weight	Estimated fat (g/100g)	Real fat content (g/100 g)	Current price (€)	Price change	
					%	€
Minced beef (9-15 pct.)	500 g	10	9 - 15 %	4.46	1.95	0.09
Tenderloin	500 g	10	2.7	12.44	0.70	0.09
Minced pork fat (9-15 pct.)	500 g	12	9 - 15 %	2.68	3.91	0.10
Cumberland sausage	500 g	12	6.7	3.55	2.94	0.10
Cutlet	500 g	12	4.14	4.20	2.50	0.10
Chicken	500 g	3.4	3.3	2.51	1.12	0.03
Chickenbreast	500 g	3.4	1	5.59	0.53	0.03

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Final proposal


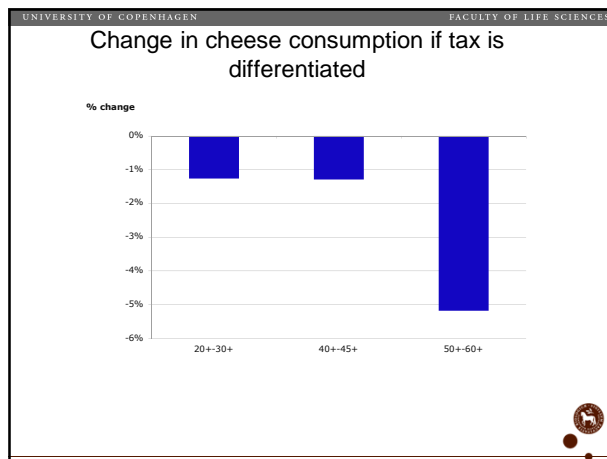
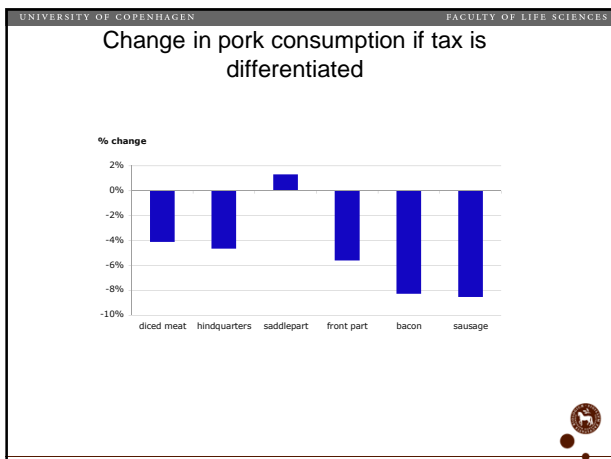
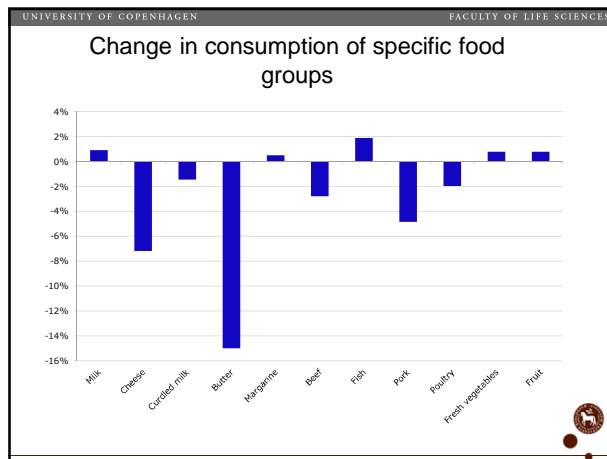
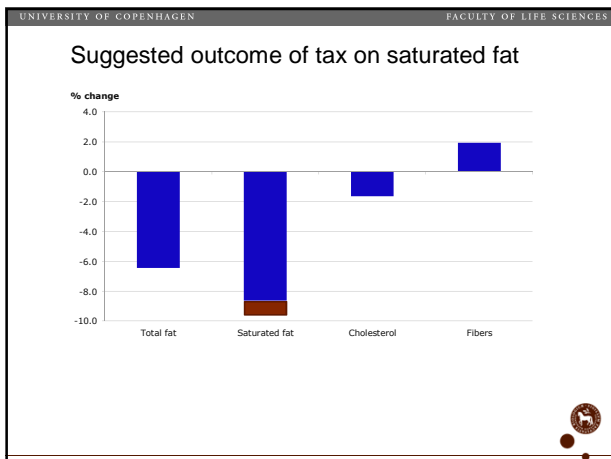
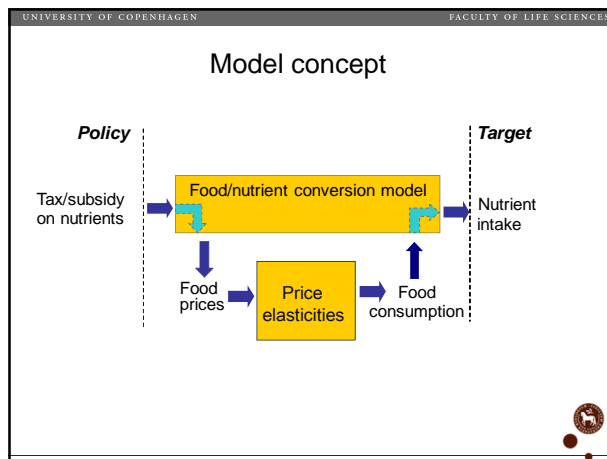
- Major critique points of "fat tax"
 - The "fat" pig
 - The undiversified "tax" on meat
- Final proposal passed in the Parliament the 17th of March 2011
 - Coefficients on saturated fat adjusted to Danish conditions
 - Possibility to differentiate according to cut of meat
 - Tax increased to 2.15 € per kg saturated fat
 - Start October 2011

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	Weight	Estimated fat (g/100g)	Real fat content (g/100 g)	Current price (€)	Price change (unified tax)		Price change (differentiated tax)	
					%	€	%	€
Minced beef (9-15 pct.)	500 g	5.2	9 - 15 %	4.46	1.95	0.09	2.88	0.13
Tenderloin	500 g	5.2	2.7	12.44	0.70	0.09	0.23	0.03
Minced pork fat (9-15 pct.)	500 g	6.5	9 - 15 %	2.68	3.91	0.10	4.80	0.13
Cumberland sausage	500 g	6.5	6.7	3.55	2.94	0.10	2.02	0.07
Cutlet	500 g	6.5	4.14	4.20	2.50	0.10	1.06	0.04
Chicken	1600 g	2.5	3.3	8.04	1.12	0.03	1.41	0.11
Chickenbreast	500 g	2.5	1	5.59	0.53	0.03	0.19	0.01

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The estimated effect of the fat tax on consumption

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Estimated revenue from tax reform


- Health taxes in total 2.75 billion D.kr. in revenue to the state (cigarettes, sugar and fat)
- Fat tax will provide a bit more than 1,2 billion D.kr in revenue
- Will cost each households almost 550 D.kr /year



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On a longer term basis

- Evaluation of natural experiments
- Cost – benefit analysis of the use of taxation
 - Calculation of administration cost
 - Short and long term welfare economic costs
- How to design a subsidy/tax scheme most effectively
 - In order to decrease social bias in obesity
 - In order to get most "efficiency"
- Are there synergy effects from combining taxation schemes and information campaigns?



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Literature/contact

- Email: ss@foi.dk

- More on the topic
 - Smed S., J.D. Jensen and S. Denver (2007): Socio-economic characteristics and the effect of taxation as a health policy instrument Food Policy. Food Policy, 32(5-6):624-639
 - Jensen, J.D., and S. Smed (2007): Cost-effective design of economic instruments in nutrition policy. International Journal of Behavioral Nutrition and Physical Activity 2007, 4(10)
 - Danish academy of technical sciences (2007): Economic nutrition policy tools - *useful in the challenge to combat obesity and poor nutrition?* Downloadable from <http://www.atv.dk/uploads/1227087410economicnutrition.pdf>

- More on the data used for model estimation
 - Smed S. (2008): Health, information and consumer behaviour Ph.D. dissertation, University of Copenhagen, Denmark

